

A NEW SPECIES OF *CATOCALA* (LEPIDOPTERA: NOCTUIDAE)
FROM THE GULF SOUTH, U.S.A.

VERNON ANTOINE BROU, JR.

137 Jack Loyd Road, Abita Springs, Louisiana 70420.

Abstract.—A new species of *Catocala* Schrank is described from southern United States. This species was previously considered a rare aberration of *Catocala agrippina* Strecker, but is distinct in both maculation and male genitalia.

This newly recognized, most striking and beautiful species has remained a mystery because of lack of material for study since Barnes and McDunnough (1918) figured it as an aberration of *Catocala agrippina* Strecker. Only seven old male specimens were located in scattered collections, three of which are in the National Museum of Natural History (NMNH), labeled only "Texas." Between 1970 and 1984, however, I collected over 100 specimens in Louisiana, including the first known females. This facilitated comparison of a series of adult specimens to *C. agrippina*, thus establishing their distinct status.

Two other names synonymized with *C. agrippina* were also reviewed to establish that these names do not apply to this new species. I have not seen the holotype of *C. subviridis* Harvey from Texas in the British Museum of Natural History, but Hampson (1913) described the holotype and it is clearly not this new species. Barnes and McDunnough (1918) state *C. agrippina* form *subviridis* is characterized by a greenish suffusion over the forewings. *Catocala barnesi* French is based on two specimens from the Barnes collection reportedly in the NMNH. Two specimens from the Barnes collection corresponding to the original description and with the locality, San Antonio, Texas, are in the NMNH but are not labeled as *C. barnesi*. However, there is little doubt they are the original syntype series of *barnesi*. The original description of *barnesi* and the two syntypes indicate this name does not apply to the new species. Barnes and McDunnough list *barnesi* as a synonym of the *subviridis* form of *agrippina*.

Catocala atocala, NEW SPECIES

Figs. 1A-C

Wing length.—Males: 34.4 mm (33-37 mm, n = 35); females: 36 mm (35-37 mm, n = 3).

Maculation.—Forewing of *atocala* medium brown and light gray (males), or white (females), black postmedial, antemedial and basal lines. Black subterminal band from vein R₄ to anal angle. Area between postmedial line and clearly defined reniform above vein M₂ mostly black. Brown basal area enclosed by black front and brown rear antemedial line. Area between postmedial and subterminal line strongly marked with brown. Slightly paler brown between reniform and ante-



Fig. 1. *Catocala atocala*. A, Holotype male. B, Allotype female. C, Male genitalia.

medial line in discal cell. Inner margin $\frac{1}{2}$ of forewing area between postmedial and antemedial lines distinctly gray in males and white in females. This light area extends basad of the antemedial line below vein A_1 in the form of a narrow band paralleling curved antemedial line and continuing $\frac{1}{2}$ distance to base along inner margin. In worn specimens, entire forewing appears light gray, some lack nearly all brown coloring except basad of antemedial line. Females have at most only a hint of a basal dash. Hindwing black with off-white barred fringe. Undersurface of wings with distinctive gray outer margin band on both forewing and hindwing. Hindwing postmedial band and basal area beige to light tan. Hindwing discal spot most prominent as bulge on the basal side of the postmedial band.

Male genitalia (Fig. 1C).—Costal and cucullar areas of left valva broad and cuneiform, end broadly rounded or squarish with rounded corners. Same areas of right valva broad, terminal edge serrated and cuspidate.

Discussion.—The rear of the upper strongly marked portion of the antemedial line of *atocala* is angled toward the anal angle or outer margin of the forewing, unlike *agrippina* which is angled toward anal angle or inner margin. The antemedial line intersects the costal margin distally on *atocala* compared to *agrippina*. The reniform is more clearly defined in *atocala*. The closed subreniform of *atocala* may be open or closed in *agrippina*. The distinct basal dash of *agrippina* females is nearly absent in *atocala* females. The hindwing undersurface white areas on *agrippina* are beige on *atocala*. The hindwing bulge (discal spot) on *atocala*, is not present on *agrippina*.

The male genitalia of *atocala* are quite different from *agrippina*. The saccular process is significantly larger and more curved than that of *agrippina*. The uncus of *atocala* is slender and less curved than that of *agrippina*. The male genitalia of *agrippina* were figured by Barnes and McDunnough (1918; pl. 18, figs. 35, 36) and match the genitalia I have seen of Louisiana *agrippina*.

Flight period.—Specimens were taken at light, fermenting bait, and while resting on pecan and oak tree trunks, and appeared two to three weeks later than *agrippina*. Adults were taken 16 June through 13 August at the type locality. Those collected after mid-July usually were worn and tattered.

Range.—*C. atocala* appears to be quite localized where found. Specimens not mentioned in the type series exist from: Houston, Harris Co., Texas; Wayside, Washington Co., Mississippi; and Tallahassee, Florida.

Types.—Holotype δ (Fig. 1A) Edgard, St. John the Baptist Parish, Louisiana, 18 June 1982, V. A. Brou Jr., NMNH type no. 100850. Allotype φ (Fig. 1B) same data. Paratypes: same locality, 29 $\delta\delta$ and 1 φ from June 16 to July 22, 1977–1983; Weyanoke, West Feliciana Parish, Louisiana, 2 $\delta\delta$ 4 July 1980; Mississippi State, Oktibbeha Co., Mississippi, 1 δ 17 July 1975. The holotype and allotype are in the NMNH. Paratypes have been deposited in: Florida State Collection of Arthropods, Gainesville, Florida; Louisiana State University, Baton Rouge; and in collections of Bryant Mather, E. C. Welling M., H. A. Freeman, and V. A. Brou Jr.

ACKNOWLEDGMENTS

I thank the following individuals who supplied information for this project: D. Baggett, Lutz, Florida; D. C. Ferguson and R. W. Poole, Systematic Entomology Laboratory, Agricultural Research Service, Washington, D.C.; E. L. Quinter,

American Museum of Natural History, New York; E. C. Knudson, Houston, Texas; B. Mather, Clinton, Mississippi; L. D. Miller, Allyn Museum, Sarasota, Florida; A. E. Brower, Augusta, Maine; H. A. Freeman, Garland, Texas; G. Strickland, Baton Rouge, Louisiana; E. C. Welling M., Merida, Yucatan.

LITERATURE CITED

- Barnes, W. and J. McDunnough. 1918. Illustrations of the North American Species of the Genus *Catocala*. Mem. Am. Mus. Nat. Hist. New Series, 3: part 1, 47 pp., 22 plates.
- Hampson, G. F. 1913. Catalogue of the Noctuidae in the Collection of the British Museum, Vol. 12. London, Taylor and Francis. 626 pp. + xiii.